

<http://somatosphere.net/2015/05/epigenetics-and-society-potential-expectations-and-criticisms-a-special-issue-of-new-genetics-and-society.html>

Epigenetics and Society: Potential, Expectations and Criticisms – A Special Issue of New Genetics and Society

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By Francis Mckay

Hi all, Part 1 of this month's In the Journals Roundup has already been posted [here](#). Part 2 will be coming soon. In addition, you can find below a special issue of [New Genetics and Society](#) on the topic of "Epigenetics and Society: Potential, Expectations and Criticisms".

[Epigenetics for the social sciences: justice, embodiment, and inheritance in the postgenomic age](#)

Maurizio Meloni

In this paper, I firstly situate the current rise of interest in epigenetics in the broader history of attempts to go "beyond the gene" in twentieth-century biology. In the second part, after a summary of the main differences between epigenetic and genetic mutations, I consider what kind of implications the sui generis features of epigenetic mutations may have for the social sciences. I focus in particular on two sites of investigation: (a) the blurring of the boundaries between natural and social inequalities in theories of justice and their possible implications for public policy and public health and (b) a deepening of the notion that the constitution of the body is deeply dependent on its material and socially shaped surroundings ("embodied constructivism"). In conclusion, I advance some cautionary reflections on some of the (known and unprecedented) problems that the circulation of epigenetics in wider society may present.

[How the genome got a life span](#)

Martine Lappé & Hannah Landecker

In the space of little more than a decade, ideas of the human genome have shifted significantly, with the emergence of the notion that the genome of an individual changes with development, age, disease, environmental inputs, and time. This paper examines the emergence of the genome with a life span, one that experiences drift, instability, and mutability, and a host of other temporal changes. We argue that developments in chromatin biology have provided the basis for this

genomic embodiment of experience and exposure. We analyze how time has come to matter for the genome through chromatin, providing analysis of examples in which the human life course is being explored as a set of material changes to chromatin. A genome with a life span aligns the molecular and the experiential in new ways, shifting ideas of life stages, their interrelation, and the temporality of health and disease.

[Epigenetic determinism in science and society](#)

Miranda R. Waggoner & Tobias Uller

The epigenetic “revolution” in science cuts across many disciplines, and it is now one of the fastest-growing research areas in biology. Increasingly, claims are made that epigenetics research represents a move away from the genetic determinism that has been prominent both in biological research and in understandings of the impact of biology on society. We discuss to what extent an epigenetic framework actually supports these claims. We show that, in contrast to the received view, epigenetics research is often couched in language as deterministic as genetics research in both science and the popular press. We engage the rapidly emerging conversation about the impact of epigenetics on public discourse and scientific practice, and we contend that the notion of epigenetic determinism – or the belief that epigenetic mechanisms determine the expression of human traits and behaviors – matters for understandings of the influence of biology and society on population health.

[Metaphors in search of a target: the curious case of epigenetics](#)

Aleksandra Stelmach & Brigitte Nerlich

Carrying out research in genetics and genomics and communicating about them would not be possible without metaphors such as “information,” “code,” “letter” or “book.” Genetic and genomic metaphors have remained relatively stable for a long time but are now beginning to shift in the context of synthetic biology and epigenetics. This article charts the emergence of metaphors in the context of epigenetics, first through collecting some examples of metaphors in scientific and popular writing and second through a systematic analysis of metaphors used in two UK broadsheets. Findings show that while source domains for metaphors can be identified, such as our knowledge of electrical switches or of bookmarks, it is difficult to pinpoint target domains for such metaphors. This may be indicative both of struggles over what epigenetics means for scientists (natural and social) and of difficulties associated with talking about this, as yet, young field in the popular press.

[Epigenetics: localizing biology through co-laboration](#)

Jörg Niewöhner

This paper reports on a co-laborative laboratory ethnography in a molecular biology laboratory conducting research on environmental epigenetics. It focuses on a single study concerned with the material implications of social differentiation. The analysis briefly raises biopolitical concerns. Its main concern lies with an understanding of the human body as local in its working infrastructure or “inner laboratory”, an understanding that emerges from the co-laborative inquiry between biologists and anthropologist. This co-laborative mode of inquiry raises productive tensions within biology as to the universal or local nature of human nature and within anthropology as to the status of human biology within social theory. The paper cannot resolve this tension. Rather it explores it as an epistemic object in the context of interdisciplinarity, ontography and co-laboration. In concluding, it specifies co-laboration as temporary, non-teleological joint epistemic work aimed at producing new kinds of reflexivity.

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